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PUBLIC HEALTH INFORMATION NETWORK

PHIN Stakeholders Meeting
Updating Select PHIN Requirements for Key Public Health Events (With Feedback)
"Anthrax Scenario"
September 16, 2003

Centers for Disease Control and Prevention

1600 Clifton Rd.
Atlanta, GA 30333
U.S.A
(404) 639-3311

Contents

Overview

These select draft requirements for the Public Health Information Network (PHIN) focus primarily on identifying the organizations that will interact and details of their communications. These requirements were presented for the 2003 PHIN Stakeholders Conference to gather feedback from the public health community.

Each requirement includes a short description of an interaction, the sender, the receiver, a description of the data or information transmitted, and the mode used to send it. In addition, each requirement includes a table containing all of the feedback collected from the meeting and responses from the PHIN requirements team. The document finishes with a table of the general feedback received at the conference and corresponding responses.

The PHIN requirements team appreciates all of the effort put forth by the participants of the requirements sessions at the Stakeholders Conference. The requirements gathering processes will continue as the PHIN develops, incorporating feedback throughout the process to yield systems, processes, standards, and integration strategies that match the public health community as a whole.

Communication Modes

The following table lists the modes of communication have been identified for transferring data between public health partners.

	Query - secure method for requesting data from another party.
	Reporting - secure method for sending unsolicited data to another party.
	Publish - public release of information. This information is not required to be secure.
	Alert - broadcast messages containing text, not data, which are pushed out to an audience. These messages are not required to be secure.
	Secure Communications - secure bulletin boards and forums where people can communicate information
	Email
	Telephone
	Fax
	Paper
	To Be Determined (TBD)

Note regarding communication methods: In some instances, parties may exchange data or information over the phone or by sending a fax the first time they communicate. However, subsequent exchanges of the same type might be frequent and contain detailed information more suited to electronic data exchange. As a result, some of the requirements may include multiple communication modes.

Draft Requirements

Note regarding feedback comments: Comments related specifically to the fictional anthrax scenario have not been included in this document. However, they have been recorded and will be considered for future uses of the scenario.

Draft Requirements

ID:	PR1
Description:	Clinical Site sends demographic and clinical data to local health department.
To:	Clinical Site
From:	Local Health Department
Contents:	Possible case data Threshold for sharing with state health department, CDC
Modes:	Reporting - HL7 Laboratory Message Paper

Feedback Comment	Response
Probably the most critical is parallel communication routes to assure information gets through.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements.
Syndromic surveillance.	The need for syndromic surveillance systems has been identified. NEDSS initiatives are currently addressing this need.
Communication to local HD from clinical site - fastest. Mode reporting telephone - add HL7.	Telephone will be evaluated as a potential communication mode.
State should get same info as local HD.	This can be addressed through configuration of the routing infrastructure.
CDC should not get info directly from clinical site, need to establish hierarchy of reporting, same reporting as for other diseases.	The threshold indicated in this requirement would come from the clinical site and indicate at which point the clinical site felt it would be appropriate for the data to be escalated through the established reporting protocols of the organizations involved.
State sends data to CDC, all info (including name) sent for category A agent.	This communication path is addressed in later requirements such as PR6.

Ensure (1) Initial lab reports reporting online - training (2) Initial symptoms entered electronically, early suspicion, alert medical person.	The PHIN encourages capturing information electronically as soon as possible. This facilitates automated processes that can identify trends and notify the appropriate party.
If online system in place, clinician or reporting source receives notification that a notification was received f(circled) a response is acknowledged. Establish online reporting system - state health. Used by all potential reporting sources.	Acknowledgement of receipt will be explored as a possible feature. A goal of the PHIN is to support the development of systems such as those described in the comment and to ensure interoperability between these systems.

Draft Requirements

ID:	PR2
Description:	Clinical site shares specimen data with public health laboratory.
To:	Clinical Site
From:	Public Health Laboratory
Contents:	Patient data
Modes:	Paper

Feedback Comment	Response
Common data set - information pushed from various generators; information pulled from various partners for use.	The PHIN will specify common message formats, data formats, and corresponding vocabularies for use by all participating organizations. Both push and pull methods will exist in the PHIN; the choice of the method to use will often be dictated by the capabilities of the parties involved and the policies that govern the relationship between the parties.
Needs to be reported to PH --> Epi. Coordinates with state lab.	Reporting to Public Health from the clinical site is addressed by requirements PR1, PR11, and PR20.
Clinical site to PH lab, patient data, add electronic message, add other locations that person works, visits, recreation.	An electronic message will be investigated for communications between these parties. The additional fields suggested will be considered in the design of the message.
Syndromic surveillance system with set of algorithms.	The need for syndromic surveillance systems has been identified. NEDSS initiatives are currently addressing this need.
Info. from specimens needs to be phoned and faxed to clinical site. Rapid dissemination.	Telephone and fax may also be viable alternatives for transmitting this information, and will be evaluated for future drafts of these requirements.

ID:	PR3
Description:	Local fire or police departments respond to BT incident and notify the FBI.
To:	FBI
From:	Local Fire or Police Department
Contents:	Environmental data Aggregate information on person exposure Field test kits results Location information Suspicions and impressions Suspect agent description
Modes:	Telephone Fax Paper

Feedback Comment	Response
Information dissemination to local law enforcement agencies through a Local Emergency Planning Committee (LEPC), an MMRS group (Metro Med Planning Committee) or Mayor's Group for Homeland Security. The easiest and fastest way we do this now is email notifications under the flag of surveillance and security updates.	Additional local agencies and organizations will be included in future revisions to the requirements. While all communications methods will be considered, it should be noted that email is not secure by itself.
Alert lab about suspected symptoms. (?) Requisitions.	Requirement PR4 suggests a possible pathway to address this requirement. The public health department would pass information along to the lab.
Local police would not perform suspect agent description.	The flow of information for the suspect agent description will be examined for future drafts of the requirements.
Suggestion: to have national repository or notification place for any notifying source to report to. However, there would certainly need to be a specific recipient on the receiving end.	Systems will be consolidated wherever practical and possible given policy constraints. Standard data exchange methods will be established where consolidation is not viable.
Question: How to get info back from FBI to locals.	A pathway from the FBI back to local organizations will be investigated.

Draft Requirements

Incident Command training should be in place to facilitate communication.	The PHIN requirements team is continuing to evaluate this comment.
(1) Referred to websites.	Requirements PR56, PR57, PR58, and PR61 provide details of these interactions. Suggestions on other uses for websites are welcome.
(2) Network computers - call center.	The PHIN provides the means to connect call centers from various organizations.
(3) Add health department to loop.	Requirement PR4 addresses this pathway.
(4) Utilize transcription software to log calls.	Transcription software will be evaluated as a possible input source.
(5) Epi's to scene first to identify	The PHIN requirements team is continuing to evaluate this comment.
(6) Email - not reliable - overloaded	Systems such as electronic messaging are often better suited for the information exchanges identified in these requirements due to the issues surrounding performance and security of email.
(7) Most likely phone call.	Phone has been identified as a likely first method in many instances. Subsequent communications will often require a method like electronic messaging capable of handling higher volume with a consistent format.
(8) First responders will not rest for environmental data.	Environmental data will be disseminated as quickly as possible by utilizing the PHIN.
(9) Mode of data capture important - make it electronic ASAP.	One of the primary goals of the PHIN is to collect data electronically as early on in the process as possible. This can enhance both the speed at which the data moves and the quality of the data.
(10) Split calls from public + government separate.	The PHIN may provide recommendations for telecommunications as they relate to the computer systems connecting public health. In general, such policy issues are managed by each individual organization.
(11) Utilize news media to pass info, constant banner messages across.	The importance of the media for consistent and expeditious release of information has been noted.
(12) Have all relevant parties been informed?	The PHIN aims to inform all relevant parties. Suggestions are welcome for pathways that may have been overlooked.
(13) What are the methods of communication? News media, phone.	Communications with the media will be investigated during future requirements definition.
(14) ICS can be used to structure messages for release.	The PHIN requirements team is continuing to evaluate this comment.
(15) Public may use 911 to gain info - poor.	The PHIN provides the infrastructure to supply information to the public regarding the appropriate channels for seeking information regarding public health events.

(16) Police and fire may not have interoperable communications equipment.	Compatibility of telecommunications equipment is of great importance; however, it does not fall within the scope of the PHIN. The PHIN is primarily focused on the network of computer systems supporting public health.
Refer callers to websites, specific epidemiologists set up call center to collect information/phoneback. Bring in EPA/Hazmat team. Known procedures/mode of data capture.	The PHIN will provide systems to facilitate these activities, but policy changes are left up to the individual organizations.
Local Police wouldn't have this much information. Health info – should give it to the FBI. In NY, they have hazmat teams (the police do). The route of information may depend on local/state set-up. University to FBI communications should have been made - build redundancy into the system. In small jurisdictions, they use their own interjurisdictional communication system (e.g., mayor's council, county executives, fire depart.) Fire/police need to be better informed/trained.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements.
Missing - computer based. Mode = radio used by dispatch, broadband communications.	Messaging or another computer based mode will be evaluated for this pathway. Also, communication methods like radio will be investigated as they relate to the computer systems supporting the public health response.
Separate local and state level communications.	Local and state levels are viewed as separate organizations but mentioned together where similarities exist.
Separate fire and police communications.	Fire and police departments are viewed as separate organizations but mentioned together where similarities exist.
Change notification process to: locals to (1) locals to state and FBI and then (2) state to fire + police and state.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements.

ID:	PR4
Description:	Local fire or police departments respond to BT incident and notify the State and perhaps Local Public Health Departments.
To:	State and Local Public Health Departments
From:	Local Fire or Police Department
Contents:	Environmental data Aggregate information on person exposure Field test kits results Location information Suspicions and impressions Suspect agent description
Modes:	Telephone Fax Paper

Feedback Comment	Response
Information dissemination to local law enforcement agencies through a Local Emergency Planning Committee (LEPC), an MMRS group (Metro Med Planning Committee) or Mayor's Group for Homeland Security. The easiest and fastest way we do this now is email notifications under the flag of surveillance and security updates.	Additional local agencies and organizations will be included in future revisions to the requirements. While all communications methods will be considered, it should be noted that email is not secure by itself.
Suggestion: to have national repository or notification place for any notifying source to report to. However, there would certainly need specific recipient on the receiving end.	Systems will be consolidated wherever practical and possible given policy constraints. Standard data exchange methods will be established where consolidation is not viable.
Question: How to get info back from FBI to locals.	A pathway from the FBI back to local organizations will be investigated.
Incident Command training should be in place to facilitate communication.	The PHIN requirements team is continuing to evaluate this comment.
Local Police wouldn't have this much information. Health info – should give it to the FBI. In NY, they have hazmat teams (the police do). The route of information may depend on local/state set-up. University to FBI	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular

communications should have been made - build redundancy into the system. In small jurisdictions, they use their own interjurisdictional communication system (e.g., mayor's council, county executives, fire depart.) Fire/police need to be better informed/trained.	requirements.
Change notification process to: locals to (1) locals to state and FBI and then (2) state to fire + police and state.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements.
Coordinated effort with local authorities about suspicions or syndromic surveillance.	The need for syndromic surveillance systems has been identified. NEDSS initiatives are currently addressing this need. The PHIN requirements team is continuing to evaluate the rest of this comment.
Local fire and police would not notify public health departments. Hospital would + FBI would notify state.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements.
State and local need specific person info - not aggregate info.	The PHIN requirements team is continuing to evaluate this comment.
Typically reporting starts from hospital ->; state -> fed. Not usually fire and police reporting to state.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements.
Perhaps there should be communications in all directions up and down. Protocols set at each level include names and phone numbers, etc.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements.
Also surveillance of NEDSS data could identify patterns, trends, etc.	NEDSS initiatives are currently addressing this need.
Incident Management systems linked with public health. Rural areas also need to be factored in.	The PHIN requirements team is continuing to evaluate this comment.

Draft Requirements

ID:	PR5
Description:	Local fire or police departments respond to BT incident and notify the CDC.
To:	CDC
From:	Local Fire or Police Department
Contents:	Environmental data Aggregate information on person exposure Field test kits results Location information Suspicions and impressions Suspect agent description
Modes:	Telephone Fax Paper

Feedback Comment	Response
Information dissemination to local law enforcement agencies through a Local Emergency Planning Committee (LEPC), an MMRS group (Metro Med Planning Committee) or Mayor's Group for Homeland Security. The easiest and fastest way we do this now is email notifications under the flag of surveillance and security updates.	Additional local agencies and organizations will be included in future revisions to the requirements. While all communications methods will be considered, it should be noted that email is not secure by itself.
Protocol for action or notification: (1) Levels of on-call persons (2) Electronic messages out to all public health folks (3) List of BT Agents - list of BT agent parameters/sympt. results.	Addition of levels of on-call persons, electronic messages and lists of BT agents will be investigated for this pathway.
Local fire and police would not notify public health departments. Hospital would + FBI would notify state.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements.

Suggestion: to have national repository or notification place for any notifying source to report to. However, there would certainly need specific recipient on the receiving end.	Systems will be consolidated wherever practical and possible given policy constraints. Standard data exchange methods will be established where consolidation is not viable.
Question: How to get info back from FBI to locals.	A pathway from the FBI back to local organizations will be investigated.
Incident Command training should be in place to facilitate communication.	The PHIN requirements team is continuing to evaluate this comment.
Local Police wouldn't have this much information. Health info - should give it to the FBI. In NY, they have hazmat teams (the police do). The route of information may depend on local/state set-up. University to FBI communications should have been made - build redundancy into the system. In small jurisdictions, they use their own interjurisdictional communication system (e.g., mayor's council, county executives, fire depart.) Fire/police need to be better informed/trained.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements.
Local fire and police don't notify CDC. They notify state health department.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements. The PHIN requirements team is continuing to evaluate this comment.
Local agencies (fire and police) should communicate directly to local public health, NOT directly to CDC.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements. The PHIN requirements team is continuing to evaluate this comment.
Missing: local public health communications with state public health.	Requirements PR22, PR55, and PR61 provide details of communication between these organizations. Any additions to these described communications are welcome.
Change notification process to: locals to (1) locals to state and FBI and then (2) state to fire + police and state.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements.
State and local should coordinate with CDC.	Pathways between state and local organizations and CDC are documented in subsequent requirements in this document. Any feedback is welcome and be considered in future revisions of the requirements.

Unlikely that there would be direct communication from local fire/police to CDC. Would go through local/state notification processes.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements. The PHIN requirements team is continuing to evaluate this comment.

Draft Requirements

ID:	PR6
Description:	State Public Health Department notifies the CDC of possible BT incident.
To:	CDC
From:	State Public Health Department
Contents:	Environmental data Aggregate information on person exposure Field test kits results Location information Suspicions and impressions Suspect agent description
Modes:	Telephone Fax Paper

Feedback Comment	Response
Universal identifier for patients - so that confidentiality isn't an issue or encryption/confiscate [illegible].	The design of the PHIN will include provisions to ensure confidentiality and HIPAA compliance.
Suggestion: to have national repository or notification place for any notifying source to report to. However, there would certainly need specific recipient on the receiving end.	Systems will be consolidated wherever practical and possible given policy constraints. Standard data exchange methods will be established where consolidation is not viable.
Question: How to get info back from FBI to locals.	A pathway from the FBI back to local organizations will be investigated.
Incident Command training should be in place to facilitate communication.	The PHIN requirements team is continuing to evaluate this comment.

Local Police wouldn't have this much information. Health info - should give it to the FBI. In NY, they have hazmat teams (the police do). The route of information may depend on local/state set-up. University to FBI communications should have been made - build redundancy into the system. In small jurisdictions, they use their own interjurisdictional communication system (e.g., mayor's council, county executives, fire depart.) Fire/police need to be better informed/trained.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements.
Problem: Redundant communications (6, 8, 11) Recommendation: Better information to all about incident without redundant communication. Solution: Central communication collaboration tool for all to post their information to.	Attempts will be made to centralize systems and reduce redundancy where feasible.

ID:	PR7
Description:	Local fire or police departments respond to BT incident and notify their local associated Clinical Site for medical assistance.
To:	Clinical Site
From:	Local Fire or Police Department
Contents:	Medical Response Information for impending outbreak (Clinical and aggregate information)

Modes:	Telephone
	  Fax
	  Paper

Feedback Comment	Response
Local Health Director (district level?) would be either notified by local public health or notify them through surveillance. Based on organism transmission behaviors and knowledge, public health could forecast spread and help formulate strategies for public safety response.	The PHIN requirements team is continuing to evaluate this comment.
This will be a collaboration between hospital, HD, and state officials.	The PHIN requirements team is continuing to evaluate this comment.
Health department needs to be connected in and information disseminated from here. The response defined in the scenario can only be done by a comprehensive system.	Requirement PR4 covers the pathway from fire and police departments to the state and local health departments.

Local Police wouldn't have this much information. Health info - should give it to the FBI. In NY, they have hazmat teams (the police do). The route of information may depend on local/state set-up. University to FBI communications should have been made - build redundancy into the system. In small jurisdictions, they use their own interjurisdictional communication system (e.g., mayor's council, county executives, fire depart.) Fire/police need to be better informed/trained.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements.
Local fire/police will not know they are responding to BT.	The PHIN requirements team is continuing to evaluate this comment.
If done through HAN, state and locals notify clinical sites.	HAN may be one of several different systems that coexist to transmit information. Thus, the PHIN is not recommending a change in the HAN process.
Include alert messaging communication.	Alerting in this capacity will be investigated for future revisions of the requirements.

ID:	PR8
Description:	FBI notifies the CDC of possible BT incident reported by State Public Health Department.
To:	CDC
From:	FBI
Contents:	Environmental data Aggregate information on person exposure Field test kits results Location information Suspicions and impressions Suspect agent description Specimen context
Modes:	Telephone Fax Paper

Feedback Comment	Response
FBI notification of CDC would entail an initial phone notification, followed by electronic and fax transmission of supporting documents and local contacts lists for investigation. Phone and email are fastest way to transmit information, and electronic case forms common to all would speed response to preserve crime scene and prepare health response.	The scenario noted in the comment is consistent with the expected usage of the PHIN. Email may be a potential addition to the communication modes for this pathway if the information does not need to be secure.

Draft Requirements

Local Police wouldn't have this much information. Health info - should give it to the FBI. In NY, they have hazmat teams (the police do). The route of information may depend on local/state set-up. University to FBI communications should have been made - build redundancy into the system. In small jurisdictions, they use their own interjurisdictional communication system (e.g., mayor's council, county executives, fire depart.) Fire/police need to be better informed/trained.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements.
Problem: Redundant communications (6, 8, 11) Recommendation: Better information to all about incident without redundant communication. Solution: Central communication collaboration tool for all to post their information to.	Attempts will be made to centralize systems and reduce unnecessary redundancy where feasible. The PHIN requirements team is continuing to evaluate this comment.
Public health investigation done by PH. Law enforcement done by law enforcement.	The PHIN is intended to facilitate faster, easier communication consistent with current organizational relationships. These relationships and communication pathways will be determined by each individual organization. A design goal of the PHIN is to provide the flexibility and capability to link all of the organizations that may wish to share information.
Local agencies need to communicate with local public health, then local public health will communicate with state.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements.

ID:	PR9
Description:	Specimen information delivered to Clinical Laboratory from Clinical Site.
To:	Clinical Laboratory
From:	Clinical Site
Contents:	Patient Demographics Specimen ID and Information
Modes:	Reporting - HL7 Laboratory Message Telephone Fax

Feedback Comment	Response
Need patient identification and demographics, physician information and facility information. (Standard CLIA fields - 5 required) Mode should be paper that accompanies the specimen. Barcoding needed on the specimen collector and a form should also have this barcode. What information does the epi need versus the lab to do their job?	The use of CLIA fields will be considered when determining the data that will accompany a sample. As noted in the comments, this standard data should address the needs of both the epidemiologists and lab personnel.
Physician Contact Info., Patient contact info.,facility contact - need to be included.	These fields will be evaluated to determine their suitability for sending with the sample.
Best mode [illegible] - paper accompanying specimen.	The PHIN intends to increase the speed of communication by adding electronic methods of sending data, but it does not necessarily replace the existing mode of communication.
Barcoding of certain information on specimen and paperwork.	The PHIN intends to use technologies such as barcodes to help associate physical objects with corresponding data. The PHIN requirements team is continuing to evaluate this comment.
Need to define standard demographic fields (specimen source, date collected, submitter.)	Standardization of the demographic fields will be investigated.

Draft Requirements

ID:	PR10
Description:	Negative test results returned to Clinical Site from Clinical Laboratory.
To:	Clinical Site
From:	Clinical Laboratory
Contents:	Specimen ID Results
Modes:	Reporting - HL7 Laboratory Result Message Telephone Fax Paper

Feedback Comment	Response
Quick notification needed to provide.	A major design goal of the PHIN is to decrease the amount of time it takes to disseminate information throughout the public health community.
Location metadata on where the specimen was collected and patient demographics. Query a system to see if there are other specimens with similar systems with an automated algorithm. Aggregate data and patterns on negative results. Algorithm should be able to be customized to be site-specific or season-specific - standard vocabulary and standard data format.	The PHIN requirements team is continuing to evaluate this comment.
Demographic and geographic. Pattern of negative results (automated algorithm specific to region, season, etc. trends). Chief complaint string in ER.	The PHIN requirements team is continuing to evaluate this comment.

ID:	PR11
Description:	Notification of suspicion of initial case from Clinical Site to State Public Health Department based on preliminary confirmation.
To:	State Public Health Department
From:	Clinical Site
Contents:	Preliminary results Patient ID Demographics or Case ID Initial case findings Clinical History
Modes:	Telephone Fax Paper

Feedback Comment	Response
Priority - Reporting from clinician to state HD.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements.
Clinical site to PHD - enough information to launch state investigation (law enforcement) - add electronic reporting to PHD. Epidemiologic investigation - data gathering; ascertain case information.	Certain clinical sites may have the capability to communicate to the State Health Department using HL7 Messaging, and the PHIN will be configurable to allow for these communications.
Could be state or local HD depending on reporting requirements. Lab should know who to contact directly by phone. Follow-up with fax to previously defined group.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements.

I think PR11 would be better served if the clinical site notified the local health department and the local PH scrambled team to gather data and query other local health institutions and facilities. Local PH has faster access to local health facilities through their HAN. Local could then package comprehensive data quickly and roll it to state. This would naturally lead to PR12.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements.
Notifications need to be communicated to local public health epi.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements.
State health department -> CDC - standard procedure. Should add NEDSS reporting (both through clinics and lab) Should notify when these types of tests are even ordered. Electronic reporting important.	The communications from the State Health Department to the CDC may be addressed by other requirements in this document. The PHIN requirements team is continuing to evaluate this comment.
Problem: Redundant communications (6, 8, 11) Recommendation: Better information to all about incident without redundant communication. Solution: Central communication collaboration tool for all to post their information to.	Attempts will be made to centralize systems and reduce redundancy where feasible. The PHIN requirements team is continuing to evaluate this comment.
Locals should be contacted at same time as state.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements.
Should go to local health department as well.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements.

ID:	PR12
Description:	Preliminary suspicion notification forwarded from State Public Health Department to CDC.
To:	CDC
From:	State Public Health Department
Contents:	Preliminary results Patient ID Demographics or Case ID Initial case findings Clinical History
Modes:	Telephone Fax Paper

Feedback Comment	Response
State HD to CDC electronic reporting follows telephone, if multiple sources or cases add electronic datasource. Look up to HANS to facilitate case reporting information.	Electronic reporting will be investigated for this pathway. The PHIN will integrate the HAN systems to facilitate case reporting. The PHIN requirements team is continuing to evaluate this comment.
Call with suspicion plus flu fax (confidential). CDC will know if other states are reporting cases. Access to secure communication needed to additional locations? (May not be practicable). Create and maintain appropriate contact list. Alert to county officials - different issue.	The PHIN requirements team is continuing to evaluate this comment.
Suspicion notification needs to be forwarded to CDC from local public health department.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements.
Send request for information back along with results (e.g., if this is confirmed, events planning already in process)	Incorporating the request in this scenario or other similar situations will be investigated.

Email/message notification should be added.	Email may be a viable addition and will be considered depending on the sensitivity of the data.

ID:	PR13
Description:	Specimen information delivered to Public Health Laboratory (LRN level A) if BT agent found in early tests.
To:	Public Health Laboratory
From:	Clinical Site
Contents:	Patient Demographics Specimen ID Information
Modes:	Reporting - HL7 Laboratory Message Telephone Fax

Feedback Comment	Response
If BT agent is found in early tests, then the specimen would be going to level B. Level A would have found the agent early in the tests.	The PHIN requirements team is continuing to evaluate this comment.
LRN level A change to LRN Level B.	The PHIN requirements team is continuing to evaluate this comment.

ID:	PR14
Description:	Test results returned from Public Health Laboratory (LRN-A lab) to Clinical Site.
To:	Clinical Site
From:	Public Health Laboratory
Contents:	Specimen ID Results
Modes:	Reporting - HL7 Laboratory Result Message Telephone Fax Paper

Feedback Comment	Response
Clinician gets (+) from state laboratory via phone.	This comment validates the concept that some results will initially be via phone and as volume increases, electronic reporting is necessary.
Test results PHL to clinical site - report lab results HL7 and telephone.	This comment also validates the concept that some results will initially be via phone and as volume increases, electronic reporting is necessary.
Will be by phone now - can't be ignored like a fax. Electronic message could enable alerting (e.g., paging). Does sender get receipt notice from recipient? (could overload system). Reserve high-priority status for really important alerts. Don't assume everyone can access email after hours. Communication strategy needs to be revisited frequently.	Return receipt will be considered, as well as the load it may incur on the system. The PHIN will provide the mechanism to distinguish priority, but the policy of the organizations using it will dictate which messages match these priorities. The constraint on email communication and the suggestion to revisit the strategy will be taken into account.

Will need to exchange data to other level A labs as well as to the state and CDC. "Publish and subscribe" peer-to-peer and up the chain. Need to be able to configure the content of the information in the HL7 message that you both send and receive.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements. The PHIN requirements team is continuing to evaluate this comment.
Configurable HL7 message.	The PHIN requirements team is continuing to evaluate this comment.
Missing: local PH, state PH.	State public health department communications with the laboratories are covered in other requirements in this document. The communications between local health departments and laboratories are potential additions to the PHIN requirements.

ID:	PR15
Description:	Test results returned from Public Health Laboratory (LRN level A) to CDC.
To:	CDC
From:	Public Health Laboratory
Contents:	Placer/Filler IDs Specimen ID Results
Modes:	Reporting - HL7 Laboratory Result Message

Feedback Comment	Response
Results go to CDC at same time as state/local.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements.
Will need to exchange data to other level A labs as well as to the state and CDC. "Publish and subscribe" peer-to-peer and up the chain. Need to be able to configure the content of the information in the HL7 message that you both send and receive.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements. The PHIN requirements team is continuing to evaluate this comment.

Draft Requirements

ID:	PR16
Description:	Positive test confirmation notification (no results) from Public Health Laboratory (LRN level A) reported to State Public Health Department (If state cannot receive results directly).
To:	State Public Health Department
From:	Public Health Laboratory
Contents:	Patient ID Case ID "Results Ready" notification
Modes:	Telephone Paper

Feedback Comment	Response
Will need to exchange data to other level A labs as well as to the state and CDC. "Publish and subscribe" peer-to-peer and up the chain. Need to be able to configure the content of the information in the HL7 message that you both send and receive.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements. The PHIN requirements team is continuing to evaluate this comment.
Configurable HL7 message.	The PHIN requirements team is continuing to evaluate this comment.

Draft Requirements

ID:	PR17
Description:	State Public Health Department retrieves lab result data from CDC (If state cannot receive results directly).
To:	State Public Health Department
From:	CDC
Contents:	Placer/Filler IDs Specimen ID Results
Modes:	Reporting - HL7 Laboratory Result Message

Feedback Comment	Response
CDC to state - Need alerts message to PH.	An alert pathway for this requirement will be investigated in the continued design process.
State HD retrieves lab results from CDC if state lab cannot receive data. HL7, add fax, telephone, pager 24/7 - email alert.	This requirement is specifically identifying an alternate pathway for states to retrieve HL7 results messages if they do not have an existing connection with the laboratories.
Why is CDC sending results electronically to state rather than having it sent directly from the lab? Maybe outside jurisdiction?	This requirement is specifically identifying an alternate pathway for states to retrieve HL7 results messages if they do not have an existing connection with the laboratories.
Simultaneous feed to lab and epi. * HL7 feed may not be appropriate for all epi departments. Process is similar to communication of suspicious case.	The PHIN requirements team is continuing to evaluate this comment.
High volume requires electronic communication.	This is a core concept of the PHIN. Initial communications may be via phone, but when volume increases, methods such as phone will not be sufficient.
Will need to exchange data to other level A labs as well as to the state and CDC. "Publish and subscribe" peer-to-peer and up the chain. Need to be able to configure the content of the information in the HL7 message that you both send and receive.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements. The PHIN requirements team is continuing to evaluate this comment.
Configurable HL7 message.	The PHIN requirements team is continuing to evaluate this comment.

Information needs to be routed down chain to local public health.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements.
Query and reporting.	This requirement is specifically identifying an alternate pathway for states to retrieve HL7 results messages if they do not have an existing connection with the laboratories.
Add query and reporting to modes.	This requirement is specifically identifying an alternate pathway for states to retrieve HL7 results messages if they do not have an existing connection with the laboratories.

Draft Requirements

ID:	PR18
Description:	Test results from Public Health Laboratory (LRN-level A) reported directly to State Public Health Department.
To:	State Public Health Department
From:	Public Health Laboratory
Contents:	Specimen ID Test Results
Modes:	Reporting - HL7 Laboratory Result Message

Feedback Comment	Response
Communication PHL to SHD - HL7 message - add telephone communication.	Telephone will be considered as an alternate method for delivering test results.
HL7 may not be sufficient for all users.	The PHIN requirements team is continuing to evaluate this comment.
Will need to exchange data to other level A labs as well as to the state and CDC. "Publish and subscribe" peer-to-peer and up the chain. Need to be able to configure the content of the information in the HL7 message that you both send and receive.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements. The PHIN requirements team is continuing to evaluate this comment.
Configurable HL7 message.	The PHIN requirements team is continuing to evaluate this comment.
Information needs to be routed down chain to local public health.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements.

ID:	PR19
Description:	State/Local Public Health Department forwards negative test result to CDC.
To:	CDC
From:	State/Local Public Health Department
Contents:	Case ID Case Status
Modes:	Reporting - HL7 Laboratory Message Telephone Paper

Feedback Comment	Response

Draft Requirements

ID:	PR20
Description:	Clinical Site reports to State Health Department that the earlier suspicion can be ignored, results have been confirmed negative.
To:	State Health Department
From:	Clinical Site
Contents:	Case ID Case Status
Modes:	Telephone Fax Paper

Feedback Comment	Response
Does CDC need information on all negative tests?	The PHIN establishes communications between the organizations. Organizations can then use these pathways according to their individual reporting requirements.
This could be better routed to local HD and cc'ed to state.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements.

ID:	PR21
Description:	Query for Case Information from State/Local Health Department to Clinical Site (additional information; agent dependent).
To:	Clinical Site
From:	State/Local Health Department
Contents:	Event type specific additional information
Modes:	Query

Feedback Comment	Response
Add telephone.	Telephone will be considered as an alternative method for querying case information.
Include telephone and fax (problems may occur when states and locals attempt to enter clinical site's records).	Telephone and fax will be considered as an alternative method for querying case information.

ID:	PR22
Description:	Notification of new case from State/Local Public Health Department to Local/State Public Health Department.
To:	Local/State Public Health Department
From:	State/Local Public Health Department
Contents:	Case ID General case information
Modes:	Alert

Feedback Comment	Response
This, in the case of my district, would go out as a [illegible] alert page with email follow-up, giving specifics, contact referrals, assignments, for investigation/response, and emergency meeting date. This leads naturally to PR23.	The fields mentioned in the comment will be considered for the contents of these messages.

ID:	PR23
Description:	Distribution of suspicions and Public Health Laboratory test results by State Public Health Department to Local Responders and other State-controlled participants.
To:	Local Responders and other State-controlled participants
From:	State Public Health Department
Contents:	General Information Event description Warnings Etc.
Modes:	Alert

Feedback Comment	Response
An email |pager| and radio call out goes to pre-designated BT event leaders from public safety, civic leaders, health department, hospitals, and their PIOs. Basic info (nature, scope, organism, meeting time and place).	The individuals to be notified will be further specified as the design of the PHIN continues. Each of the groups in this comment will be considered.

ID:	PR24
Description:	Original specimen information sent by Public Health Laboratory (LRN level A) directly to Public Health Laboratory (LRN level B) for follow-up confirmation.
To:	Public Health Laboratory (LRN level B)
From:	Public Health Laboratory (LRN level A)
Contents:	Original specimen ID Test request Party to whom results should be sent
Modes:	Reporting - HL7 Laboratory Message

Feedback Comment	Response

Draft Requirements

ID:	PR25
Description:	Test results from Public Health Laboratory (LRN level B/C) reported back to Clinical Site.
To:	Clinical Site
From:	Public Health Laboratory (LRN level B/C)
Contents:	Specimen ID Test results
Modes:	Telephone Fax Paper

Feedback Comment	Response

ID:	PR26
Description:	Clinical Site reports second confirmation of positive test results back to State/Local Public Health Department
To:	State/Local Public Health Department
From:	Clinical Site
Contents:	Specimen ID Positive test results

Modes:	Telephone
	
	  Fax
	
	  Paper

Feedback Comment	Response
Parallel.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements.
Lab should be reporting to state and local.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements.
Should be simultaneous.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements.

ID:	PR27
Description:	Test results from Public Health Laboratory (LRN level B,C) reported to CDC; positive confirms new open case, negative closes old suspicion and case
To:	CDC
From:	Public Health Laboratory (LRN level B,C)
Contents:	Specimen ID Test results
Modes:	Reporting - HL7 Laboratory Result Message

Feedback Comment	Response
Parallel.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements.
Should be simultaneous.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements.

ID:	PR28
Description:	Positive test confirmation from Public Health Laboratory (LRN level B,C) reported to State Public Health Department (no detailed results) or Negative results close the case (If state cannot receive results directly).
To:	State Public Health Department
From:	Public Health Laboratory (LRN level B,C)
Contents:	Specimen ID "Results Ready" notification
Modes:	Telephone Paper

Feedback Comment	Response
Parallel.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements.
Should be simultaneous.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements.
Add local, add HL7.	Local health departments will be taken into account. This requirement is specifically to notify the state or local health department that the results are ready, thus HL7 was not included.
Should be parallel.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements.

Draft Requirements

ID:	PR29
Description:	State Public Health Department retrieves lab result data from CDC (if state cannot receive results directly).
To:	State Public Health Department
From:	CDC
Contents:	Placer/Filler Ids Specimen ID Results
Modes:	Reporting - HL7 Laboratory Result Message

Feedback Comment	Response
Query and reporting.	These additional modes will be evaluated in the continuing PHIN design.

Draft Requirements

ID:	PR30
Description:	Positive test results from Public Health Laboratory (LRN level B,C) reported directly to State Public Health Department.
To:	State Public Health Department
From:	Public Health Laboratory (LRN level B,C)
Contents:	Specimen ID Positive test results
Modes:	Reporting - HL7 Laboratory Result Message

Feedback Comment	Response
Results need to be sent to CDC and clinical site.	The pathway between the laboratory and the CDC is covered in other requirements in this document, PR25 and PR27.

ID:	PR31
Description:	State Health Department requests CDC Field Team to be set up.
To:	CDC
From:	State Health Department
Contents:	Case ID Type of outbreak Event information Team request
Modes:	Reporting - HL7 Laboratory Result Message Email Telephone Fax Paper

Feedback Comment	Response
Local (at least district) HD needs to be copied and have input in this process to be sure planning is realistic and based on up-to-the-moment data.	The addition of local health departments will be evaluated.
Where is the PIO in all of this? Field team needed to be sent up with first positive test and local health department notified.	The PHIN requirements team is continuing to evaluate this comment.
Don't need HL7.	Organizations will not all use the PHIN in exactly the same way. Some organizations may not need HL7 messaging in this situation, others may prefer it.
Team should include environmental sampling expertise - CDC sets up but draws on expertise from other agencies as appropriate to include on team.	The PHIN is intended as the communication method for setting up teams, leaving the decisions about the composition of the teams to the organizations creating the teams.

ID:	PR32
Description:	Field Team sends specimen(s) information to Public Health Laboratory (LRN level B,C) for testing.
To:	Public Health Laboratory (LRN level B,C)
From:	Field Team
Contents:	Specimen ID Shipping information Test request
Modes:	Reporting - HL7 Laboratory Message

Feedback Comment	Response
Environmental samples needed.	Environmental sample information will be evaluated as possible additions to the contents of this message.
Add actual specimen, send by secure carrier, or specify whether materials being sent are data or specimen/samples.	The sending of the actual message is not within the scope of the PHIN, only the communications necessary to accomplish this task.
Add samples (env) as well as specimens -> make it 32A. Need uniform chain of custody for samples - who controls all way from collection to destination?	Environmental sample information will be evaluated as possible additions to the contents of this message. Electronic communications of chain of custody will also be investigated. The PHIN requirements team is continuing to evaluate this comment.

ID:	PR33
Description:	Field Team sends copy of specimen context and tracking information to CDC.
To:	CDC
From:	Field Team
Contents:	Specimen context
Modes:	Reporting - HL7 Laboratory Message

Feedback Comment	Response
Make 33A, add samples -> maybe process through EPA labs?	Environmental sample information will be evaluated as a possible addition to the contents of this message.
Define specimen and SAMPLE context.	These concepts will be further defined in the detailed design of the PHIN.

ID:	PR34
Description:	Field Team sends copy of specimen context and tracking information to State/Local Health Department.
To:	State/Local Health Department
From:	Field Team
Contents:	Specimen context
Modes:	Reporting - HL7 Laboratory Message

Feedback Comment	Response
Define specimen and SAMPLE context.	These concepts will be further defined in the detailed design of the PHIN.

ID:	PR35
Description:	State/Local Health Department forwards specimen collection/context information to CDC.
To:	CDC
From:	State/Local Health Department
Contents:	Specimen ID shipping information test request Specimen context
Modes:	Reporting - HL7 Laboratory Message Paper

Feedback Comment	Response
Define specimen and SAMPLE context.	These concepts will be further defined in the detailed design of the PHIN.

ID:	PR36
Description:	Field Team sends updated case data to State/Local Public Health Department.
To:	State/Local Public Health Department
From:	Field Team
Contents:	Case ID Case context
Modes:	Reporting - HL7 Case Report Message

Feedback Comment	Response

ID:	PR37
Description:	State/Local Public Health Department dept forward case to CDC.
To:	CDC
From:	State/Local Public Health Department
Contents:	Case ID Case context
Modes:	Reporting - HL7 Case Report Message

Feedback Comment	Response

ID:	PR38
Description:	Field Team sends updated case data to CDC.
To:	CDC
From:	Field Team
Contents:	Case ID Case context
Modes:	Reporting - HL7 Case Report Message

Feedback Comment	Response

ID:	PR39
Description:	Notification to FBI and other federal agencies of availability of new test results and summary data at CDC.
To:	FBI and other federal agencies
From:	Public Health Laboratory
Contents:	TBD
Modes:	Reporting - HL7 Laboratory Message Telephone Fax

Feedback Comment	Response
Public health would not notify FBI of results.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements.
Centralized place for posting secured information.	Systems will be consolidated wherever practical and possible given policy constraints. Standard data exchange methods will be established where consolidation is not viable.

Draft Requirements

ID:	PR40
Description:	Other Federal Agencies pull new test results from CDC
To:	Other Federal Agencies
From:	CDC
Contents:	TBD
Modes:	Reporting - HL7 Laboratory Results Message

Feedback Comment	Response
Why pull? Set up mechanism to copy in real time with case number (or better yet, event number) to identify and route. Copy to local HD and players.	Reporting requirements will differ between organizations. The PHIN is being designed to include a configurable routing infrastructure to allow an organization to customize the flow of information based on its particular requirements.
w/ alerting system in place.	The PHIN requirements team is continuing to evaluate this comment.

Draft Requirements

ID:	PR41
Description:	All Field Teams get notification that the test results are available at the CDC
To:	Field Team
From:	CDC
Contents:	Specimen ID "Results Ready" notification
Modes:	Reporting - HL7 Laboratory Message

Feedback Comment	Response
Improve sharing of test results.	This is a core goal of the PHIN.
Forward automatically to wireless devices, Palm, iPAQ, etc. speed dissemination of actual information.	This additional step will be explored as possible PHIN functionality.

Draft Requirements

ID:	PR42
Description:	Any Field Team may pull results from the CDC queues.
To:	Field Team
From:	CDC
Contents:	Specimen Context Test Results
Modes:	Reporting - HL7 Laboratory Results Message

Feedback Comment	Response
Secured, timely, ensured receipt during times of increased e-activity - rapid notification and redundancy.	These non-functional requirements will be taken into account in the continuing design process for the PHIN.

ID:	PR43
Description:	The Intervention Center is notified that there is information to be retrieved from the CDC
To:	Intervention Center
From:	CDC
Contents:	Notification "Treatment/intervention List Ready"
Modes:	Email Telephone Fax Paper

Feedback Comment	Response
People are going to be moving around quite a lot at this point. Try to hit mobile communication devices with notifications and alerts.	This additional step will be explored as possible PHIN functionality.

Draft Requirements

ID:	PR44
Description:	The Intervention Center retrieves information from the CDC – matches contacts information to people with cards.
To:	Intervention Center
From:	CDC
Contents:	Treatment/intervention List
Modes:	Reporting - HL7 Intervention Request Message

Feedback Comment	Response
Environmental modes necessary.	The PHIN requirements team is continuing to evaluate this comment.

ID:	PR45
Description:	The Intervention Center is sent information for interventions.
To:	Intervention Center
From:	CDC
Contents:	Treatment/intervention List
Modes:	Reporting - HL7 Intervention Request Message

Feedback Comment	Response

Draft Requirements

ID:	PR46
Description:	The Intervention Center reports on Vaccine administration progress/status.
To:	CDC
From:	The Intervention Center
Contents:	List of Interventions Performed
Modes:	Reporting - HL7 Interventions Performed Message

Feedback Comment	Response
Copy aggregate data to PIOs and players.	The PHIN requirements team is continuing to evaluate this comment.

ID:	PR47
Description:	List of vaccinated individuals is sent from CDC to Field Team.
To:	Field Team
From:	CDC
Contents:	List of Interventions Performed
Modes:	Reporting - HL7 Interventions Performed Message

Feedback Comment	Response
Improve tracking - Security. Exposure vs. (+) clinical tests. Training of use.	The PHIN requirements team is continuing to evaluate this comment.

ID:	PR48
Description:	Field team sends list of contacts (for contagious agents) to CDC.
To:	CDC
From:	Field Team
Contents:	List of Case Contacts
Modes:	Reporting - HL7 Case Contact List Message

Feedback Comment	Response
Copy to local health departments.	This additional pathway will be evaluated.
Anthrax is not a contagious agent, why would they need info on this?	The PHIN requirements team is continuing to evaluate this comment.

ID:	PR49
Description:	Field team sends list of desired interventions to CDC.
To:	CDC
From:	Field Team
Contents:	List of Desired Interventions to be performed
Modes:	Reporting - HL7 Interventions Required Message

Feedback Comment	Response
Copy to local HDs for logistics support.	This additional pathway will be evaluated.
Field team communicates with local public health.	This additional pathway will be evaluated.

ID:	PR50
Description:	Field team sends list of desired interventions to State/Local Public Health Department. Covers the list of people with cards, number of doses of antibiotics needed, etc.
To:	State/Local Public Health Department
From:	Field Team
Contents:	List of Desired Interventions to be performed
Modes:	Reporting - HL7 Interventions Required Message

Feedback Comment	Response
Do in 49 to save delays and get input.	These requirements have been specified separately only to help identify all of the possible messages. These may or may not occur in parallel depending on the conditions at the time of sending.
CDC needs to send stockpile of antibiotics.	The PHIN is primarily concerned with communications necessary to facilitate the sending of stockpile resources.

Draft Requirements

ID:	PR51
Description:	State/Local Public Health Department forwards field list of desired interventions to CDC.
To:	CDC
From:	State/Local Public Health Department
Contents:	List of Desired Interventions to be performed
Modes:	Reporting - HL7 Interventions Required Message

Feedback Comment	Response
We could do from 49/skip 50.	There may be more than one way for information to flow in the PHIN. This is an example of one alternate route that has been identified, going first to the state (PR50), then to the CDC.
CDC needs to send stockpile of antibiotics.	The PHIN is primarily concerned with communications necessary to facilitate the sending of stockpile resources.

ID:	PR52
Description:	Field team sends list of contacts (for contagious agents) to State/Local Health Department.
To:	State/Local Public Health Department
From:	Field Team
Contents:	List of Case Contacts
Modes:	Reporting - HL7 Case Contact List Message

Feedback Comment	Response
At this point, epis need to be called in for contact tracking but contacts of persons infected should not be called because anthrax is not contagious.	The PHIN requirements team is continuing to evaluate this comment.

ID:	PR53
Description:	State/Local Public Health Department PH Dept forwards field list of case contact to CDC.
To:	CDC
From:	State/Local Public Health Department
Contents:	List of Case Contacts
Modes:	Reporting - HL7 Case Contact List Message

Feedback Comment	Response
Improve information querying - Security. Export readily which includes status of that client - exposed, case, confirmed. How often is the list updated?	The PHIN requirements team is continuing to evaluate this comment.
Materials should already be in place.	The PHIN requirements team is continuing to evaluate this comment.

ID:	PR54
Description:	CDC Sends alert to all relevant health departments and labs
To:	State/Local Public Health Departments and Labs
From:	CDC
Contents:	TBD
Modes:	Alert

Feedback Comment	Response
What new data? If they are copied on all previous, this step is not required.	This requirement is specifically covering alerts to devices like mobile phones and pagers. These messages would be specific, possibly including instructional information instead of raw data.

Draft Requirements

ID:	PR55
Description:	State/Local Public Health Department sends alert to all relevant health departments and labs.
To:	Local Public Health Departments and Labs
From:	State/Local Public Health Department
Contents:	TBD
Modes:	Alert

Feedback Comment	Response
Trickle-down.	In some cases, trickle-down will be the appropriate way for organizations to receive data. The PHIN will also be configurable to allow for new pathways if organizations have additional reporting requirements.

ID:	PR56
Description:	CDC publishes updated information on public website.
To:	Public
From:	CDC
Contents:	TBD
Modes:	Publish

Feedback Comment	Response
And tips PIOs prior so they can do local announcements.	The PHIN requirements team is continuing to evaluate this comment.
Need to know what is going on? What communities are affected? Is it safe? What can I do about it? What is being done to address the situation? - aggregated story of what is being done.	The PHIN will provide the facility to publish content. The information contained in this web content will be determined by the publishing organization.
Guidance for people (don't go to public places), activities public can do to protect list of travel advisories, hand washing, duct tape, to prevent transmission.	The PHIN will provide the facility to publish content. The information contained in this web content will be determined by the publishing organization.

Draft Requirements

ID:	PR57
Description:	CDC makes information available for the press (possibly on non-public website)
To:	Press
From:	CDC
Contents:	TBD
Modes:	Publish

Feedback Comment	Response
Guidance for people (don't go to public places), activities public can do to protect list of travel advisories, hand washing, duct tape, to prevent transmission.	The PHIN will provide facilities to publish content. The information contained in this web content will be determined by the publishing organization.

ID:	PR58
Description:	Updated lab test protocols are published to the CDC, state, and local websites
To:	Public
From:	CDC and State/Local Public Health Departments
Contents:	Lab protocols
Modes:	Publish

Feedback Comment	Response

ID:	PR59
Description:	Search a web-based directory to find experts in various areas.
To:	State/Local Health Departments, Field Teams, Intervention Centers, Clinical Sites
From:	CDC
Contents:	Contact information
Modes:	Query

Feedback Comment	Response
Also check local HD HAN; He/She will already have lists of local experts (who are close to scene!)	The PHIN is meant to augment existing methods of finding information instead of replacing them. For example, the web-based directory could be used to find the local HAN, who would in turn provide local experts.

Draft Requirements

ID:	PR60
Description:	Pharmaceutical companies are notified of increased demand for drugs/vaccines based on BT event.
To:	Pharmaceutical companies
From:	CDC
Contents:	TBD
Modes:	Alert

Feedback Comment	Response
Would local HD be contacted to get data on local pharmacy levels already at scene?	This pathway will be investigated as a possible piece of PHIN functionality.

Draft Requirements

ID:	PR61
Description:	CDC/State/Local websites publish training materials for laboratory testing, epidemiology, and environmental investigation.
To:	State/Local Public Health Departments, Laboratories, Field Teams, Intervention Centers, Clinical Sites, CDC
From:	CDC and State/Local Public Health Departments
Contents:	Training Materials
Modes:	Publish

Feedback Comment	Response
Improve education. Electronic notification of updates, fax, satellite broadcast - academic partnerships, communications with local clinicians.	These are all consistent with the major design goals of the PHIN.

ID:	PR62
Description:	State/Local Public Health Department requests latest statistics from CDC for publishing on their website or for use in press releases.
To:	State/Local Public Health Department
From:	CDC
Contents:	Statistics
Modes:	Query

Feedback Comment	Response
Why are they not copied when stats are first available? Why do they have to ask?	This requirement is not intended to replace any processes that are already in place to send statistics when they become available. In some cases, the organization that generates the statistics may not know the consumers of that information. This mechanism where data is queried by the consumer satisfies this scenario.

ID:	PR63
Description:	FBI receives threat and notifies State/Local Public Health Department.
To:	State/Local Public Health Department
From:	FBI
Contents:	Description of threat
Modes:	Telephone Fax TBD

Feedback Comment	Response
Should be more detailed information. Mode of communication: Include frank interactions/visibility with public. Problem with communication: everything is marked as draft.	Specifics on the detailed information that may be missing would be welcome additions. The PHIN is focusing on the modes of communication that can be enhanced through technology. Frank interactions and public visibility will be investigated to determine how they fit in this category. The PHIN requirements team is continuing to evaluate this comment.
Description of threat, how received, source of information, who, note vs. phone call. How credible is the information? Who needs to know? Internally more info can be shared (say how widely it can be distributed.) (1) Instructions for distribution (2) Should include time sensitivity. Office of Communications guidelines in dealing with distribution (especially to public) are the best CDC guidelines for communication.	These details of the content of the message will be evaluated during the continuing design of the PHIN.

ID:	PR64
Description:	FBI receives threat and notifies CDC.
To:	CDC
From:	FBI
Contents:	Description of threat

Modes:	Telephone
	
	  Fax
	
	  TBD

Feedback Comment	Response
As does local HD. Good redundancy.	This requirement also shows that there may be several flows for some events.
Should be more detailed information. Mode of communication: Include frank interactions/visibility with public. Problem with communication: everything is marked as draft.	Specifics on the detailed information that may be missing would be welcome additions. The PHIN is focusing on the modes of communication that can be enhanced through technology. Frank interactions and public visibility will be investigated to determine if components exist which fit in this category. The PHIN requirements team is continuing to evaluate this comment.
Description of threat, how received, source of information, who, note vs. phone call. How credible is the information? Who needs to know? Internally more info can be shared (say how widely it can be distributed.) (1) Instructions for distribution (2) Should include time sensitivity. Office of Communications guidelines in dealing with distribution (especially to public) are the best CDC guidelines for communication.	These details of the content of the message will be evaluated during the continuing design of the PHIN.

ID:	PR65
Description:	Local Police Department receives threat and notifies State/Local Public Health Department
To:	State/Local Public Health Department
From:	Local Police Department
Contents:	Description of threat

Modes:	Telephone
	
	  Fax
	
	  TBD

Feedback Comment	Response
Should be more detailed information. Mode of communication: Include frank interactions/visibility with public. Problem with communication: everything is marked as draft.	Specifics on the detailed information that may be missing would be welcome additions. The PHIN is focusing on the modes of communication that can be enhanced through technology. Frank interactions and public visibility will be investigated to determine if components exist which fit in this category. The PHIN requirements team is continuing to evaluate this comment.
Description of threat, how received, source of information, who, note vs. phone call. How credible is the information? Who needs to know? Internally more info can be shared (say how widely it can be distributed.) (1) Instructions for distribution (2) Should include time sensitivity. Office of Communications guidelines in dealing with distribution (especially to public) are the best CDC guidelines for communication.	These details of the content of the message will be evaluated during the continuing design of the PHIN.

ID:	PR66
Description:	Local Police Department receives threat and notifies State/Local Public Health Department
To:	State/Local Public Health Department
From:	Local Police Department
Contents:	Description of threat

Modes:	Telephone
	
	  Fax
	
	  TBD

Feedback Comment	Response
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Description of threat, how received, source of information, who, note vs. phone call. How credible is the information? Who needs to know? Internally more info can be shared (say how widely it can be distributed.) (1) Instructions for distribution (2) Should include time sensitivity. Office of Communications guidelines in dealing with distribution (especially to public) are the best CDC guidelines for communication.	These details of the content of the message will be evaluated during the continuing design of the PHIN.

General Feedback

Feedback Comment	Response
Location information is important.	Location information will be evaluated for requirements that do not already include it in the contents of the message.
Time information is important.	Time information will also be evaluated for both the contents of the message and the metadata regarding the message.
Shared database for access from various levels.	Shared databases may be appropriate for some PHIN functionality and will be taken into account during design efforts.
Phone list 24/7.	Requirement PR59 addresses this issue. Phone numbers for people and organizations in the directory will be provided when appropriate.
Multiple geographic jurisdictions.	Geographic jurisdictions will be considered during continued PHIN design work.
Issue of coordination for uniformed approach.	As organizations make changes to the policies and procedures that affect coordination, the PHIN can help implement them.
3 counties - Need standardized form.	Standardized forms are not entirely within the scope of the PHIN. In many cases, organizations will have to come to consensus on the information needed, and then the PHIN can support electronic methods of collecting and transmitting that information.
Issues with number of LHDs in tri-county. Planning and coordination should be there with regional leadership and surveillance.	The PHIN requirements team is continuing to evaluate this comment.
MDs confused about reporting.	Increased use of electronic reporting in the PHIN will reduce the burden of understanding reporting requirements from the user. In cases where electronic reporting is not feasible, the PHIN can provide information about reporting through online training applications and information resources.
No active surveillance. Needed electronic system and syndromic surveillance.	The need for syndromic surveillance systems has been identified. NEDSS initiatives are currently addressing this need.
MD education needed.	The PHIN will incorporate online training to help disseminate information.
All systems need redundant alert system.	The PHIN will incorporate a redundant alert system that will attempt to contact individuals using several different contact methods.
Cognizant of confidentiality issues.	The design of the PHIN will include provisions to ensure confidentiality and HIPAA compliance.

This group quickly got bogged down in terms of grouping the Epi requirements thematically. Instead we decided to decide on several functions or epi themes into which the messaging requirements fit loosely. There were: (1) Case ascertainment, case confirmation, case investigation (mostly local, some state HD function) (2) Shared access to a common data repository, probably at the state level, to which local, state, and federal levels have access (access to be controlled at state level; access to be filtered so that different users may have/see different aspects of information. Local HD to have widest access and be able to enter and edit data.) This model changes emphasis on data from one of "transfer" amongst parties to one of "access" and DB management. (3) Data to have alert flags; individual data points or trends in data to generate an alarm or flag that a particular action is warranted. (4) communication and "heads up" intelligence. (5) interventions.	The PHIN requirements team is continuing to evaluate this comment.
Need to have the clinical site send negative lab results to state public health, as well as positives, during investigation of suspect cases.	This new pathway will be investigated for addition to these requirements. Many organizations may be interested in negative results for surveillance.
The need for flexibility of systems to permit for new diseases or conditions, new field situations, etc.	These comments will be taken into consideration in the detailed design of the systems that comprise the PHIN.
There were no messages/requirements related to case investigation or outbreak investigation (exposures, dates, locations, environmental considerations.)	These fields will be taken into consideration in the detailed design of the systems that comprise the PHIN.
Need to consider how these systems support "Incident Command", or whatever centralized emergency function is operating the response (this would be public health for some scenarios, but might be the State Emergency Response operations center, or Fed level, in other circumstances.)	The PHIN requirements team is continuing to evaluate this comment.
Need to identify means for law enforcement to inform Public Health in a scenario such as this.	Law enforcement has been identified as a major participant PHIN communications.
One participant (Mike Atkinson) suggested analyzing an information matrix or communications matrix, to formally identify gaps.	The PHIN requirements team is continuing to evaluate this comment.
Need to build in a messaging mechanism for local providers (HAN function.)	The PHIN requirements team is continuing to evaluate this comment.

Draft Requirements

We focused on "epi" considerations but acknowledged that we would need to integrate the environmental, lab, and communications requirements and functions as well (some of the "needs" elaborated here may already be addressed within requirements which we were not tasked to consider.)	Some of the requirements presented do cover the other areas mentioned. Nevertheless, the PHIN design team will continue to incorporate additional requirements from these areas.
Epi - case investigation, Laboratory - integration of samples to epidemiology, Surveillance - Enhancement, Communications - secured, non-secured, public, etc.	All of these aspects will be reviewed in design efforts.
Improve notification from or between local law enforcement and public health. Authorities - public health, FBI, local Docs. Technology - share of information (HAN, conference) Relationship - knowing. Security - to [illegible] need.	The goal of the PHIN is to enhance communications between all of these organizations.
Improve detection. How can PHIN improve detection?	The PHIN requirements team is continuing to evaluate this comment.
Priorities (Cross Representative): (1) Security - secured transfer (confidential) - secured share. (2) Redundancy - ensure the message is received. (3) Training. (Additional) Local knowledge of organizations that use specific agents.	The cross-cutting concerns are included in the current design direction of the PHIN. Providing lists of agents used by organizations will be considered as an additional function for the PHIN.
Standard vocabulary, standard data format.	These two aspects will crucial to creating the interoperable systems used in the PHIN.
Minimum data set that comes with specimen at the entry point from clinicians.	The amount of data that can be required will be dependent upon on the policies and procedures of the organization.
Multiple tracking of samples on one patient.	This function will be considered as an additional requirement for the PHIN.
Coordination/leadership.	The PHIN enhances communication capability, which can lead to better coordination and help leaders to make more informed decisions.
Waiting for standards in states/locals.	The PHIN requirements team is continuing to evaluate this comment.
People and process - especially down to local and clinical sites.	The PHIN requirements team is continuing to evaluate this comment.
Established protocol for communication to public.	The PHIN requirements team is continuing to evaluate this comment.
Established protocol for communication between CDC, state health department, local health department, police, and fire.	The PHIN requirements team is continuing to evaluate this comment.
Determine/Identify contacts at each level.	The PHIN requirements team is continuing to evaluate this comment.
Create biohazard consultation protocol vs. Create biohazard notification protocol.	The PHIN requirements team is continuing to evaluate this comment.

Test/practice communications protocols.	The PHIN requirements team is continuing to evaluate this comment.
Missing entity is a states EOC	The PHIN requirements team is continuing to evaluate this comment.
Establish relationships with appropriate organizations and maintain. Unique to each state.	The PHIN requirements team is continuing to evaluate this comment.
Define where media is involved.	The PHIN requirements team is continuing to evaluate this comment.
Redundant - e.g., satellite phone.	The PHIN requirements team is continuing to evaluate this comment.
Granularity of requirements tends to obscure need for collaboration, centralization.	The PHIN requirements team is continuing to evaluate this comment.
Push Technology (list-serv's) vs. Passive systems request.	The PHIN requirements team is continuing to evaluate this comment.
Pre-event Knowledge. CDC has a list of labs, educational organizations or whatever that has anthrax or any of the identified BT agents. Do the local and state public health departments know if these entities are in their locales? Do they know if anthrax is in school A in their area? If an event occurs in an area and the local entities do not know until an event occurs questions will be asked and public health will look ignorant!	The PHIN requirements team is continuing to evaluate this comment.
General comments: no discussion of need to or how to communicate with media and policy makers, both of whom will be persistent in learning about developments as they unfold. Leaks are inevitable so both press and policy makers will learn about this. A tendency of public health professionals is to ignore these two groups which creates big problems that could have easily been avoided through well-thought-out and fairly simple communications.	The PHIN requirements team is continuing to evaluate this comment.
Toll free # for public to call/URL - surge capacity.	The PHIN requirements team is continuing to evaluate this comment.
Response is locally.	The PHIN requirements team is continuing to evaluate this comment.
Joint press conference with public health/law enforcement/hospital.	The PHIN requirements team is continuing to evaluate this comment.
Develop communication template to follow at local level.	The PHIN requirements team is continuing to evaluate this comment.
Develop mechanisms to deliver alerts to physicians.	The PHIN requirements team is continuing to evaluate this comment.
Establish regular time for press conferences and spokesperson.	The PHIN requirements team is continuing to evaluate this comment.
Develop system for lab to collect, analyze, organize and deliver results.	The PHIN requirements team is continuing to evaluate this comment.
Connect with lab.	The PHIN requirements team is continuing to evaluate this comment.

Develop active surveillance in NEDSS system.	The PHIN requirements team is continuing to evaluate this comment.
Use HAN alerting to notify all partners.	The PHIN requirements team is continuing to evaluate this comment.
Link with death (M.E.).	The PHIN requirements team is continuing to evaluate this comment.
Incident needs to be defined - different communications plans will need to be implemented depending on the type of event. i.e. (1) Missing anthrax sets off communications to public health, etc. as an FYI - be on the lookout and be prepared. (2) Positive anthrax test results starts communications to public health, including environmental health, CDC, hazmat, etc. for response and dissemination to the public.	The PHIN requirements team is continuing to evaluate this comment.
Communication plan is not fully defined. Must be defined before look at implementation.	The PHIN requirements team is continuing to evaluate this comment.
Put info into electronic format ASAP. Clearinghouse - disaster and emergency relief groups in place	The PHIN requirements team is continuing to evaluate this comment.
Radio communications in police and fire vehicles - broadband issues.	The PHIN requirements team is continuing to evaluate this comment.
Strong local focus and contact.	The PHIN requirements team is continuing to evaluate this comment.
EXERCISE & DRILL.	The PHIN requirements team is continuing to evaluate this comment.
Need redundant and reliable information - modalities.	The PHIN requirements team is continuing to evaluate this comment.
Fire - police to FBI (Telephone/Fax/Paper) (1) Recommend central # and coordination via secure line. (2) Local fire/police contact at public health department. (3) Electronic secure communication.	The PHIN requirements team is continuing to evaluate this comment.
(1) Dual notification process. (2) Named Contact. (3) Add email. (4) Local HAN. (5) Plan for making decision and starting responsible media coverage. (6) Only a comprehensive system with special emphasis. (7) Huge number of samples - process for handling. (8) May have to pull in OSHA and environmental labs.	The PHIN requirements team is continuing to evaluate this comment.
(1) Better media education and coordination for "worried well". (2) Communication to first responders key. (3) All responses local. (4) Build strong stakeholder relationships. (5) Who's in charge, background - absolutely critical. (6) Establish protocol for working with media (who, what, when, how...) spokesperson important. (7) Need a system for releasing public information for confirmed information vs. what we don't know.	The PHIN requirements team is continuing to evaluate this comment.

Website: (1) What community affected? (2) What is it? (3) Who's at risk? (4) How to protect themselves. (5) A reliable spokesperson.	The PHIN requirements team is continuing to evaluate this comment.
Proactive usage of data both contact and GIS information.	The PHIN requirements team is continuing to evaluate this comment.
Parallel reporting not sequential.	The PHIN requirements team is continuing to evaluate this comment.
Replace paper with electronic means where possible.	The PHIN requirements team is continuing to evaluate this comment.
Redundancy in reporting is critical.	The PHIN requirements team is continuing to evaluate this comment.
Include locals with state.	The PHIN requirements team is continuing to evaluate this comment.
Include environment information.	The PHIN requirements team is continuing to evaluate this comment.
What about non-LRN labs that are used?	The PHIN requirements team is continuing to evaluate this comment.
Change all paper modes to email!!!	The PHIN requirements team is continuing to evaluate this comment.
Increase redundancy.	The PHIN requirements team is continuing to evaluate this comment.
Need redundancy in either mode or path in case a message is not received.	The PHIN requirements team is continuing to evaluate this comment.
Local health department needs to be included. Local labs.	The PHIN requirements team is continuing to evaluate this comment.
Where can't retrieve information - need a mode other than HL7.	The PHIN requirements team is continuing to evaluate this comment.
Need to collect more detailed location and environmental data as a result of alert/specimen/etc.	The PHIN requirements team is continuing to evaluate this comment.
No proactive analysis, no contact info, no geographic mapping.	The PHIN requirements team is continuing to evaluate this comment.
Simultaneous notification should be planned for.	The PHIN requirements team is continuing to evaluate this comment.
Paper elimination should be a goal.	The PHIN requirements team is continuing to evaluate this comment.
Need definitions to do a good job of this. ex. "Clinical site" could be an ER or a temporary distribution site. Our comment would differ.	The PHIN requirements team is continuing to evaluate this comment.
Clarify roles and responsibilities within CDC and among CDC/EPA/state/local and establish protocols for communication.	The PHIN requirements team is continuing to evaluate this comment.
Distinguish samples (env) from specimens (health).	The PHIN requirements team is continuing to evaluate this comment.
HL7 - may not be best format for communicating environmental sample info.	The PHIN requirements team is continuing to evaluate this comment.

EPA is notified when samples test positive (how this happens needs to be clarified up front) - include contextual information. [Need to validate that EPA labs can comply with CDC protocol.]	The PHIN requirements team is continuing to evaluate this comment.